



February 5, 2020

FID # 647018680  
Pepin County  
SW/APPR

Mr. Steve Bechel  
Eau Galle Cheese Factory, Inc.  
N6765 County Highway 25  
Durand, WI 54736

Subject: Conditional Grant of Low Hazard Waste Exemption for Use of Waste Salt Brine as a Roadway Deicing Additive

Dear Mr. Bechel:

We have completed our review of your request dated November 15, 2019, to use ultra-filtered (UF) waste salt brine (brine) from cheese making operations, with sand and/or salt as a deicing additive on roadways, and to allow the use of straight brine on roadways as a deicing agent. Based on our review, the Department of Natural Resources (department) has determined that your plan is consistent with the low hazard exemption requirements in s. NR 500.08(5), Wis. Adm. Code, and s. 289.43 (8) (b), Stats.

The brine would be used as a deicing additive to activate and speed up the effectiveness of and enhance the adherence of the sand and/or salt applied to roadways during cold weather. Similarly, brine applied directly to roads acts as an anti-icing agent. The plan review fee of \$550.00 was received on December 2, 2019.

Therefore, the use of brine from Eau Galle Cheese Factory, Inc. at N6765 County Highway 25, Durand, Wisconsin as a deicing agent is granted as a low hazard waste exemption in accordance with ch. 289, Stats., and chs. NR 500-538, Wis. Adm. Code, subject to the conditions in the attached approval. Under this grant of exemption, brine may be supplied to any governmental agency, for use in sanding/salting activities for deicing operations, or directly applied to bridges and roadways as an anti-icing agent. Each governmental agency you supply the brine to shall be given a copy of this approval to know how the brine shall be applied.

This approval will expire five years following the date issued. A condition of this approval requires a written request from the facility to the department to extend the approval an additional five years. The department reserves the right to modify this grant of exemption should conditions warrant.

You are required to submit a report to the department by June 1<sup>st</sup> of each year documenting how much brine was distributed for use as a deicing/anti-icing agent during the previous year (May 1<sup>st</sup> through April 30<sup>th</sup>). The report shall include a list of the municipalities that received the brine, including the dates and volumes of brine distributed to each municipality.

Please note that you also need to list the total volume of brine used in deicing/anti-icing operations on Form 3400-52 (Other Means of Disposal) when submitting your WPDES Annual Land Application Report.

You are reminded that approval by the Waste & Materials Management Program does not relieve you of obligations to meet all other applicable federal, state and local permits, zoning and regulatory requirements.

Individuals responsible for implementing the provisions of your request should be familiar with this approval and the associated conditions.

If you have any questions regarding this approval, please contact Troy Gansluckner at 715/684-2914, ext. 132, or by email at [Troy.Gansluckner@wisconsin.gov](mailto:Troy.Gansluckner@wisconsin.gov).

Sincerely,

A handwritten signature in dark ink, appearing to read "John Morris". The signature is fluid and cursive, with the first name "John" being more prominent than the last name "Morris".

John Morris, Professional Soil Scientist  
Waste and Materials Management Program Supervisor  
Northern and West Central Regions

c:      Troy Gansluckner – Baldwin (email)  
         Adebowale “Wa-le” Adesanwo – Baldwin (email)  
         Megan Ballweg – Eau Claire (email)

BEFORE THE  
STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES

CONDITIONAL GRANT OF SOLID WASTE EXEMPTION  
FOR THE USE OF WASTE SALT BRINE AS A DEICING AGENT  
FROM THE EAU GALLE CHEESE FACTORY, INC. ON WISCONSIN ROADS

FINDINGS OF FACT

The department finds that:

1. Eau Galle Cheese Factory, Inc. (Eau Galle Cheese Factory) submitted a low hazard exemption request, dated November 15, 2019, to the Department of Natural Resources (department) on November 19, 2019, for the use of ultra-filtered waste salt brine as a deicing agent.
2. The plan review fee of \$550.00 for this request was received by the department on December 2, 2019.
3. The brine from Eau Galle Cheese Factory is the result of the ultra-filtration (UF) of brine water used in the cheese making process.
4. The brine is composed of private well water, salt and small amounts of fats and organic compounds that have passed through the UF filtration system.
5. Eau Galle Cheese Factory produces 500 – 1,000 gallons of brine per week from their operations. Brine not used for road application as a deicing/anti-icing agent will be managed through their existing Wisconsin pollutant discharge elimination system (WPDES) permit.
6. The composition of the brine from the Eau Galle Cheese ultra-filtration system is a liquid containing approximately 19% salt, has a pH of 5.1, contains 621 mg/L TKN, and has a BOD in the range of 15,132 mg/L.
7. Eau Galle Cheese Factory is currently remodeling their brine room. UF equipment has been temporarily removed. Preliminary sampling with the UF equipment indicates BOD should drop significantly once that equipment is reinstalled.
8. The department considers this action to be a routine action and a minor action as defined in s. NR 150.03 (15), Wis. Adm. Code.
9. Additional documents considered in review of the exemption request include the following:
  - a. A handbook titled “Minnesota Snow and Ice Control: Field Handbook for Snowplow Operators, Second Revision” published by the Minnesota Local Road Research Board (LRRB), and MnDOT, revised October 2012.
  - b. Guidelines published by WisDOT in Highway Maintenance Manual (HMM) 06-20-20, “Application Rates Anti-Icing” published January 2012.
  - c. A presentation provided by Symbiont to the Wisconsin Cheese Makers Association, Midwest Food Processors Association, and the Wisconsin DNR on “Cheese Brine for Road Deicing,” February 15, 2018.
10. Additional facts relevant to the review of the exemption request include the following:
  - a. The inorganic fraction of the brine consists of conventional salt compounds that are similar or identical to road salt and deicing compounds currently used on highways.
  - b. The organic fraction of the brine consists of small amounts of fats and other organic compounds resulting from the cheese-making operation that generated the brine.

- c. The department has determined that the application rates of both the inorganic fraction and the organic fraction of the brine is not likely to have any incremental effect on runoff or roadside soil quality beyond that exerted by current road maintenance operations.
  - d. Brine from cheese making will displace other agents used in deicing/anti-icing operations during winter months.
  - e. The brine is not known to contain synthetic organic compounds, solvents, volatile organic compounds, or semi-volatile organic compounds from any source other than food processing operations.
11. If the conditions set forth below are complied with, the proposal will meet the requirements of s. NR 500.08(5), Wis. Adm. Code, and s. 289.43 (8), Stats.

### CONCLUSIONS OF LAW

1. The department has the authority under s. 289.43 (8) (b), Stats., and s. NR 500.08(5)(a), Wis. Adm. Code to issue a grant of exemption if the department finds regulation is not warranted in light of potential hazard to public health or the environment.
2. The department has authority under s. 289.43 (8) (c), Stats., to approve a grant of exemption with conditions.
3. The department has authority under s. NR 150.20(1m)(k), Wis. Adm. Code, to consider a routine approval a minor action and authority under s. NR 150.20(1m), Wis. Adm. Code, to not perform an environmental analysis under the provisions of Wisconsin Environmental Policy Act (WEPA) for minor actions.

### CONDITIONAL GRANT OF EXEMPTION

The department hereby grants a low hazard exemption to Eau Galle Cheese Factory for the use of waste salt brine as a deicing agent for roadways. The following conditions apply to this grant of exemption:

1. This conditional grant of exemption shall apply to the use of brine as a deicing/anti-icing agent on public highways and bridges, access roads, and parking lots that are maintained by governmental highway agencies.
2. The brine shall be applied to salt and/or sand at a rate no greater than 15 gallons per ton of salt and/or sand.
3. The brine shall be applied directly to bridges and roadways at a rate no greater than 20 gallons per mile as an anti-icing agent.
4. This approval shall become void if changes are made to the filtration system or other processes used which may result in the 5-day biochemical oxygen demand (BOD) of the waste salt brine to exceed 20,000 mg/l.
5. Distributed brine that is not used as a deicing/anti-icing agent and is returned to Eau Galle Cheese Factory in the same condition and quality as originally distributed shall be managed following the conditions of the Eau Galle Cheese Factory WPDES permit.
6. Eau Galle Cheese Factory shall submit a report to the department by June 1<sup>st</sup> of each year stating the total volume of brine distributed for use as a deicing/anti-icing agent during the previous year (May 1<sup>st</sup> through April 30<sup>th</sup>). The report shall also include a list of the municipalities that received the brine, including the dates and volumes of brine distributed to each municipality.
7. Eau Galle Cheese Factory shall notify the department's Waste & Materials Management Program if the use of brine as a deicing/anti-icing additive is discontinued.

8. Eau Galle Cheese Factory shall list the total volume of brine used in deicing/anti-icing operations on Form 3400-52 (Other Means of Disposal) when submitting the WPDES Annual Land Application Report.
9. This conditional grant of exemption shall expire five years from the date of this approval. This approval may be extended beyond that date, and conditions may be modified if justified by experience and feedback from operation of the project prior to that date.

The department retains the jurisdiction either to require submittal of additional information or to modify this approval at any time if, in the department's opinion, conditions warrant further modifications. Enforcement discretion may apply if the conditions of this grant of exemption are not followed.

#### NOTICE OF APPEAL RIGHTS

If you believe you have a right to challenge this decision made by the department, you should know that Wisconsin statutes and administrative codes establish time periods and requirements for reviewing department decisions.

To seek judicial review of the department's decision, sections 227.52 and 227.53, Stats., establish criteria for filing a petition for judicial review. You have 30 days after the decision is mailed or otherwise served by the department to file your petition with the appropriate circuit court and serve the petition on the department. The petition shall name the Department of Natural Resources as the respondent.

Dated: February 5, 2020

DEPARTMENT OF NATURAL RESOURCES  
For the Secretary



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John Morris  
Waste Management Program Supervisor  
Northern and West Central Region



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Troy Gansluckner  
Waste Management Specialist  
West Central Region